## AMENDMENTS TO THE CLAIMS

1. (Currently amended) At least one computer readable medium encoded with instructions that, when executed by at least one processor, perform a [[A]] method for generating speech recognition models, the method comprising:

~~converting speech spoken from a plurality of female speakers into a female set of recorded phonemes training data;~~

~~converting speech spoken from a plurality of male speakers into a male set of recorded phonemes training data;~~

receiving a female speech recognition model of phoneme models based on ~~the~~ a female set of recorded phonemes training data;

receiving a male speech recognition model of phoneme models based on ~~the~~ a male set of recorded phonemes training data;

determining a difference in model information between pairs of corresponding phoneme models of the ~~first~~ female speech recognition model and the ~~second~~ male speech recognition model; and

creating a gender-independent speech recognition model that includes a gender-independent phoneme model based on ~~the female set of recorded phonemes training data and the male set of recorded phonemes training data if~~ a pair of corresponding phoneme models of the female speech recognition model and the male speech recognition model when the difference in model information between the phoneme models of the pair of corresponding phoneme models is insignificant.

2. (Currently amended) The ~~method~~ at least one computer readable medium of claim 1, further comprising removing each of the phoneme models of the pair of corresponding phoneme models from the female speech recognition model and the male speech recognition model when the difference in model information between the phoneme models is insignificant ~~wherein whether the model information is insignificant is based on a threshold model quantity~~.

3. (Currently amended) The ~~method~~ at least one computer readable medium of claim 1, wherein determining the difference in model information includes calculating a Kullback Leibler distance between the first speech recognition model and second speech recognition model.

4. (Currently amended) The ~~method~~ at least one computer readable medium of claim 3, wherein whether the model information is insignificant is based on a threshold Kullback Leibler distance quantity.

5. (Currently amended) The ~~method~~ at least one computer readable medium of claim 1, wherein the female speech recognition model, the male speech recognition model, and the gender-independent speech recognition model are Gaussian mixture models.

6. (Currently amended) A system for generating speech recognition models, the system comprising:

a computer processor;

a first speech recognition model of phoneme models based on a first set of training data, the first set of training data originating from a first set of common entities;

a second speech recognition model of phoneme models based on a second set of training data, the second set of training data originating from a second set of common entities; and

a processing module configured to create an independent speech recognition model that includes an independent phoneme model based on a pair of corresponding phoneme models of the first speech recognition model and the second speech recognition model when ~~the first set of training data and the second set of training data if~~ the difference in model information between the phoneme models of the pair of corresponding phoneme models ~~first speech recognition model and the second speech recognition model~~ is insignificant.

7. (Currently amended) The system of claim 6, wherein the processing module is configured to remove each of the phoneme models of the pair of corresponding phoneme models from the first speech recognition model and the second speech recognition mode when the difference in model

information between the phoneme models is insignificant ~~whether the model information is insignificant is based on a threshold model quantity~~.

8. (Previously presented) The system of claim 6, wherein the processing model is further configured to calculate a Kullback Leibler distance between the first speech recognition model and second speech recognition model.

9. (Original) The system of claim 8, wherein whether the model information is insignificant is based on a threshold Kullback Leibler distance quantity.

10. (Currently amended) The system of claim 6, wherein the first speech recognition model, the second speech recognition model, and the independent speech recognition model are Gaussian mixture models.

11. (Currently amended) A computer program product embodied in computer memory comprising:

computer readable program codes coupled to the computer memory for generating speech recognition models, the computer readable program codes configured to cause the program to:

receive a first speech recognition model of phoneme models based on a first set of training data, the first set of training data originating from a first set of common entities;

receive a second speech recognition model of phoneme models based on a second set of training data, the second set of training data originating from a second set of common entities;

determine a difference in model information between pairs of corresponding phoneme models of the first speech recognition model and the second speech recognition model; and

create an independent speech recognition model that includes an independent phoneme model based on a pair of corresponding phoneme models of the first speech recognition model and the second speech recognition model when ~~the first set of training data and the second set of training data if~~ the difference in model information between the phoneme models of the pair of corresponding phoneme models is insignificant.

12. (Currently amended) The computer program product of claim 11, wherein the computer readable program codes configured to cause the program to remove each of the phoneme models of the pair of corresponding phoneme models from the first speech recognition model and the second speech recognition model when the difference in model information between the phoneme models is insignificant ~~whether the model information is insignificant is based on a threshold model quantity~~.

13. (Original) The computer program product of claim 11, wherein determining the difference in model information includes calculating a Kullback Leibler distance between the first model and second model.

14. (Original) The computer program product of claim 13, wherein whether the model information is insignificant is based on a threshold Kullback Leibler distance quantity.

15. (Currently amended) The computer program product of claim 11, wherein the first speech recognition model, the second speech recognition model, and the independent speech recognition model ~~models~~ are Gaussian mixture models.

16. (Currently amended) A system for generating speech recognition models, the method comprising:

a computer processor;

a first speech recognition model of phoneme models based on a first set of training data, the first set of training data originating from a first set of common entities;

a second speech recognition model of phoneme models based on a second set of training data, the second set of training data originating from a second set of common entities; and

means for creating an independent speech recognition model that includes an independent phoneme model based on a pair of corresponding phoneme models of the first speech recognition model and the second speech recognition model when ~~the first set of training data and the second set of training data if~~ the difference in model information between the phoneme models of the pair of

corresponding phoneme models ~~first speech recognition model and the second speech recognition model~~ is insignificant.

17. (Currently amended) At least one computer readable medium encoded with instructions that, when executed by at least one processor, perform a [[A]] method for recognizing speech from an audio stream originating from one of a plurality of data classes, the method comprising:

~~converting the speech into the audio stream;~~

receiving a current feature vector of the audio stream;

computing a current vector probability that the current feature vector belongs to one of the plurality of data classes;

computing an accumulated confidence level that the audio stream belongs to one of the plurality of data classes based on the current vector probability and on previous vector probabilities;

weighing class models based on the accumulated confidence; and

recognizing the current feature vector based on the weighted class models; and

wherein the plurality of data classes include a female speech recognition model based on recorded phonemes originating from a plurality of female speakers, a male speech recognition model based on recorded phonemes originating from a plurality of male speakers, and a gender-independent speech recognition model that includes independent phoneme models based on pairs of corresponding recorded phonemes originating from the plurality of ~~both~~ female speakers and the plurality of male speakers having insignificant differences in model information between the recorded phonemes of the pair of corresponding recorded phonemes, each of the female speech recognition model and the male speech recognition model lacking the phoneme models of the gender-independent speech recognition model based on pairs of corresponding recorded phonemes originating from the plurality of female speakers and the plurality of male speakers having insignificant differences in model information between the recorded phonemes of pairs of corresponding recorded phonemes.

18. (Currently amended) The ~~method~~ at least one computer readable medium of claim 17, wherein computing the current vector probability includes estimating an a posteriori class probability for the current feature vector.

19. (Currently amended) The ~~method~~ at least one computer readable medium of claim 17, wherein computing the accumulated confidence level further comprising weighing the current vector probability more than the previous vector probabilities.

20. (Currently amended) The ~~method~~ at least one computer readable medium of claim 17, the method further comprising determining if another feature vector is available for analysis.

21. (Currently amended) A system for recognizing speech data from an audio stream originating from one of a plurality of data classes, the system comprising:

a computer processor;

a receiving module configured to receive a current feature vector of the audio stream;

a first computing module configured to compute a current vector probability that the current feature vector belongs to one of the plurality of data classes;

a second computing module configured to compute an accumulated confidence level that the audio stream belongs to one of the plurality of data classes based on the current vector probability and on previous vector probabilities;

a weighing module configured to weigh class models based on the accumulated confidence; and

a recognizing module configured to recognize the current feature vector based on the weighted class models; and

wherein the plurality of data classes include a first speech recognition model based on recorded phonemes originating from a first set of speakers, a second speech recognition model based on recorded phonemes from a second set of speakers, and a third speech recognition model that includes phoneme models based on pairs of corresponding recorded phonemes originating from both the first and second set of speakers having insignificant differences in model information

between the recorded phonemes of the pair of corresponding recorded phonemes, each of the first speech recognition model and the second speech recognition model lacking the phoneme models of the third speech recognition model based on pairs of corresponding recorded phonemes originating from both the first and second set of speakers having insignificant differences in model information between the recorded phonemes of the pairs of corresponding recorded phonemes.

22. (Original) The system of claim 21, wherein the first computing module is further configured to estimate an a posteriori class probability for the current feature vector.

23. (Original) The system of claim 21, wherein the second computing module is further configured to weigh the current vector probability more than the previous vector probabilities.

24. (Currently amended) A computer program product embodied in computer memory comprising:

computer readable program codes coupled to the computer memory for recognizing speech data from an audio stream originating from one of a plurality of data classes, the computer readable program codes configured to cause the program to:

receive a current feature vector of the audio stream;

compute a current vector probability that the current feature vector belongs to one of the plurality of data classes;

compute an accumulated confidence level that the audio stream belongs to one of the plurality of data classes based on the current vector probability and on previous vector probabilities;

weigh class models based on the accumulated confidence; and

recognize the current feature vector based on the weighted class models; and

wherein the plurality of data classes include a first speech recognition model based on recorded phonemes originating from a first set of speakers, a second speech recognition model based on recorded phonemes from a second set of speakers, and a third speech recognition model that includes phoneme models based on pairs of corresponding recorded phonemes originating from both the first and second set of speakers having insignificant differences in model information

between the recorded phonemes of the pairs of corresponding recorded phonemes, each of the first speech recognition model and the second speech recognition model lacking the phoneme models of the third speech recognition model based on pairs of corresponding recorded phonemes originating from both the first and second set of speakers having insignificant differences in model information between the recorded phonemes of the pairs of corresponding recorded phonemes.

25. (Original) The computer program product of claim 24, wherein the program code configured to compute the current vector probability includes program code configured to determine an a posteriori class probability for the current feature vector.

26. (Original) The computer program product of claim 24, wherein the program code configured to compute the accumulated confidence level includes program code configured to weigh the current vector probability more than the previous vector probabilities.

27. (Original) The computer program product of claim 24, further comprising program code configured to determine if another feature vector is available for analysis.